

WEATHER OF THE MONTH.

WEATHER OF NORTH AMERICA AND ADJACENT OCEANS.

GENERAL CONDITIONS.

By A. J. HENRY, Meteorologist.

In September in the Northern Hemisphere the barometric gradients are the weakest of the year and the control of the surface winds is least pronounced. The area of maximum pressure still overlies the middle portion of the North Atlantic with a westward extension into the eastern half of the North American continent. The barometer level in this high is below 30.20 inches. Mean pressure is lowest in the Arctic with centers of greatest depression in the vicinity of Iceland and over the Aleutians. The change in mean pressure from August to September leads to the reestablishment of the continental highs and is preparatory to the setting in of the vigorous circulation of winter.

NORTH PACIFIC OCEAN.

F. G. TINGLEY, Meteorologist.

Additional ship reports, as well as press dispatches, give further evidence of unusual typhoon activity in Asiatic waters during the present season, the series of tropical storms which began near the end of July continuing beyond the middle of September.

The first of the September typhoons had its inception during the closing days of August and reached the Eastern Sea to the northward of Formosa during the night of the 31st. The U. S. Army transport *Sherman*, from Manila for Nagasaki, felt the full force of this storm near latitude 27° N., longitude 127° E., during the day and night of September 1. Mr. Paul R. Wright¹ gives the following account of the conditions at the height of the storm:

At daylight I crawled out again and for some hours was privileged to behold one of the wildest and most sublime scenes that men have ever looked upon and lived to tell about. The storm was at its height. The wind was coming in gusts that reached 120 miles an hour. The air was simply filled with the white spume of the sea, just as the air is filled with snow in a great storm at home. To windward it was impossible to see more than 100 feet and to leeward not much farther. Yet through this white welter we could see something of the heights and depths that hemmed us in more than masthead high, with writhing slopes like the sides of mountains.

The wind pitched itself at us with a force that made the gale of the night before seem puny and ineffective. Altogether it was an exhibition of violence unsurpassed. The nearest approach to it is afforded by Niagara Falls, as you ride up to the foot of the tumbling waters in the *Maid of the Mist*, or walk under them to the Cave of the Winds. But here both air and water were like a Niagara let loose and driving themselves down upon our little steel ship. Against the unprotected face the hard-driven spume stung like the flying particles of a sandstorm.

It was terrible and magnificent.

At 8 o'clock the barometer reached its lowest mark and stood at 28.58. From this point the mercury rose steadily and the wind tended to abate. The humming reverberation of the ship under the pounding seas gradually lessened and the general strain was relieved before night fell.

The *Sherman* went into Nagasaki harbor and quarantine two days later, with Asiatic cholera among her crew and one death.

From September 10 to 12 the U. S. Navy transport *Pensacola*, from San Francisco for Manila, while in latitude 13° 30' N., longitude 140°-135° E., experienced stormy weather and moderate southerly to westerly gales, with long rolling seas. On the 10th reports of a typhoon to the northwestward were received.

On the 21st and 22d a third typhoon prevailed off the coast of Japan. Very complete reports of this storm have been received from the American steamship *Venezuela*, Capt. G. W. Yardley, Yokohama for Honolulu, and the British steamship *Methven*, Capt. L. D. Douglas, Yokohama for Vancouver. The former vessel passed through the center of the storm from 3:10 a. m. to 4:15 a. m. of the 22d, latitude 35° N., longitude 150° 2' E. The lowest barometer reading was 28.44 inches. On the 21st the *Methven* was found to be in the left-hand semi-circle of this typhoon, proceeding on the same general course. The wind held steadily from the north for a considerable time, until the ship was hove to so as to permit the typhoon to cross her desired course to the eastward.

First Officer E. A. Winkworth, observer on the *Methven*, reports an interesting phenomenon, observed during the height of the storm. "A remarkable phenomenon of the sky at one period," says Mr. Winkworth, "was the appearance of a practically clear opening in the clouds, circular in shape and showing through as a light yellowish patch, its diameter covering an arc of 10° and its bearing from the ship in the direction of the storm field. The edges of this opening were torn and wild looking. This lasted for a considerable time, until a squall was experienced and it was not observed again."

Reports received are too few to permit of giving the exact paths of the typhoons.

NORTH AMERICA.

By A. J. HENRY.

The outstanding features of the weather seem to have been the breaking of the prolonged drought in the northern Rocky Mountains and Great Plains, and, in general, a reversal to some extent of the normal rainfall distribution for the month. Very little rain fell in the Gulf and South Atlantic States where heavy September rains are the rule. In the far Southwest a period of four days with light rains was the feature of the month. Temperature was generally above the normal. Pressure distribution was more or less irregular. The high pressure east of the Mississippi and south of the Ohio was probably closely associated with the shortage of precipitation in that region. Storm activity for the month was confined to the northern border, the Gulf of Mexico, and to Asiatic waters.

NORTH ATLANTIC OCEAN.

By F. A. YOUNG.

According to observations received from land stations, the mean pressure for the month of September was practically normal on the American coast north of Hatteras, and somewhat lower than usual south of that point, as well as in West Indian waters and the Bermudas; it was nearly normal in the British Isles and slightly above in the Azores.

At Greenwich mean noon on September 3 there was a slight depression central near Nantucket (see Chart IX) accompanied by light to moderate winds. According to

¹ Chicago Daily News, Oct. 20, 1919.